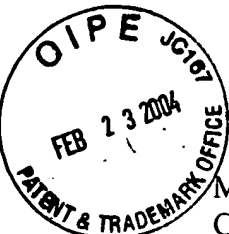


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Technology Center 2100

Re:            Application of:        James J. Coogan  
              Serial No.:        09/990,465  
              Filed:            November 21, 2001  
              For:              A Controller for Devices in a Network  
              Group Art Unit:    2125  
              Examiner:        Alexander J. Kosowski  
              Our Docket No.:    1867-0047  
              Siemens Docket No.: 2001P21981US

TRANSMITTAL OF BRIEF ON APPEAL

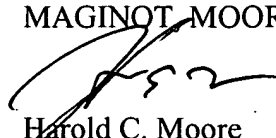
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1.     Original of the Appeal Brief;
2.     Three (3) copies of the Appeal Brief;
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Enclosed please find a check in the amount of \$330.00 to cover the filing fee of a Brief on Appeal as required by 37 C.F.R. § 1.17(c). Please charge any deficiency, or credit any overpayment to Deposit Account No. 13-0014.

Respectfully Submitted,

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February 17, 2004

Enclosures



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FEB 25 2004

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BRIEF ON APPEAL

Sir:

This is an appeal under 37 CFR § 1.191 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the final rejection of claims 1, 3-15 and 25-30 of the above-identified patent application. These claims were indicated as finally rejected in an Office Action dated October 17, 2003. Three copies of the brief are filed herewith. A check in the amount of \$330.00 is provided herewith to

cover the fee required under 37 CFR § 1.17(f). Also, please provide any extension of time which may be necessary and charge any fees which may be due to Deposit Account No. 13-0014, but not to include any payment of issue fees.

**(1) REAL PARTY IN INTEREST**

Siemens Building Technologies, Inc. is the owner of this patent application, and therefore the real party in interest.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences related to this patent application.

**(3) STATUS OF CLAIMS**

Claims 1, 3-15 and 25-30 are pending in the application.

Claims 1, 3-15 and 25-30 stand rejected and form the subject matter of this appeal. Claims 1, 3-15 and 25-30 are shown in the Appendix attached to this Appeal Brief.

Claims 1, 9, 25, and 27 furthermore stand objected to as having minor, inadvertent typographical errors. Applicant acknowledges the need for correction and will amend the claims as suggested by the Examiner upon allowance.

**(4) STATUS OF AMENDMENTS**

Applicants filed a Response to Office Action dated August 15, 2003 ("Response") responsive to an Office Action dated March 4, 2003. A final Office Action dated October 9, 2003 was designated by the Examiner to be responsive to the Response.

## (5) SUMMARY OF THE INVENTION

Independent claim 1 is directed to a network device controller that includes a device driver. The device driver selectively controls an end device in a control network. The driver includes a plurality of input selectors, at least one intermediate selector and an output selector. (See Application at claim 1). The plurality of input selectors are configured to select a plurality of first output signals from a plurality of first input signals. Referring to a nonlimiting example in the Application, elements 46 and 48 of Fig. 4 select a plurality of output signals "Y" from a plurality of input signals 54, 56, 58 and 59. Similarly, elements 72, 74, 76 and 78 of Fig. 5 constitute other examples of input selectors, and elements 102, 104, 106 and 108 of Fig. 6 constitute still other examples of input selectors. Even elements 110 and 112 could be construed to be input selectors under one application of claim 1 to Fig. 6.

Referring again generally to the invention of claim 1, the at least one intermediate selector operates to select at least one second output signal from the first output signals. By way of example, each of element 50 of Fig. 4, element 88 of Fig. 5, and elements 110, 112 and/or 122 of Fig. 6 constitute the at least one intermediate selector, as each receives a plurality of output signals from the corresponding input selectors and selects a second output signal.

The output selector is operable to select an operating mode of the end device from a plurality of predefined operating modes base on said second output signal. Element 52 of Fig. 4, element 92 of Fig. 5 and element 126 of Fig. 6 constitute nonlimiting examples of the output selector.

With respect to other claims, one embodiment includes a switch coupled between the at least one intermediate selector and the output selector. (See, e.g. claim 4, see also, for example, element 122 of Fig. 6). In some embodiments, the *operating* modes include fixed and variable operations of the end device. (See, e.g., claims 5-8; specification at p.7, line 8 to p.8, line 7).

Another embodiment of the invention is a method of selectively controlling an end device in a control network. The method includes a steps of selecting a plurality of first output signals from a plurality of first input signals using a device driver provided in a controller. The method also includes selecting a second output signal from said plurality of first output signals using said device driver. The method also includes selecting an operating mode of the end device from a plurality of predefined operating modes based on said second output signal using said device driver. (See, e.g., claim 11, specification at p.7, line 25 to p.8, line 7; p.8, line 28 to p.10, line 2).

## **(6) ISSUES**

Whether claims 1, 3-15 and 25-30 are unpatentable under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,786,993 to Frutiger (hereinafter “Frutiger”) in view of U.S. Patent No. 6,388,399 to Eckel et al. (hereinafter “Eckel”).

## **(7) GROUPING OF CLAIMS**

The claims do not all stand or fall together.

Claims 1, 3, 5-8 and 10 form a first separately patentable group which is argued independently of the other claims for purposes of this appeal.

Claims 11-15 and 27-30 form a second separately patentable group which is argued independently of the other claims for purposes of this appeal.

Claim 4 forms a third separately patentable group which is argued independently of the other claims for purposes of this appeal.

Claim 9 forms a fourth separately patentable group which is argued independently of the other claims for purposes of this appeal.

## **(8) ARGUMENT**

**First Claim Grouping:      Claims 1, 3, 5-8 and 10 Are Not  
Obvious Over Frutiger in view of Eckel**

### *Discussion re: Patentability of Claim 1*

#### 1.    Claim 1

Claim 1 includes the following limitations:

        a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input selectors . . .

In addition, claim 1 recites that at least one intermediate selector selects a second output signal from the first output signals. Moreover, claim 1 recites that an output selector selects an operating mode of an end device based on the second output signal. As a consequence, there are three levels of interrelated selectors (input, intermediate and output), the first of which generates multiple output signals.

2. The Claimed Combination of References Does Not Include a Plurality of Input Selectors as Claimed

The proposed combination of Frutiger and Eckels does not arrive at the claimed invention. In particular, neither Frutiger nor Eckels, either alone or in combination, teach, show or suggest a plurality of input selectors that select a plurality of first output signals such that the other elements of the claim are also met.

In the rejection of claim 1, the Examiner relies upon the device shown in Fig. 1 of Frutiger. (See Final Office Action at p.3). As an initial point, Fig. 1 of Frutiger appears to show only two levels of selectors, elements 1 and 2. If element 1 is the input selector, then the claim element is not met by Frutiger because the Frutiger lacks a *plurality* of input selectors, and further lacks any input selector that generates a *plurality* of first output signals. Element 1 is only *one* input selector, and it only generates a single output 14. If, on the other hand, elements 1 and 2 are considered to be the claimed input selectors, then the apparatus of Fig. 1 of Frutiger has no *intermediate* selector, nor any output selector.

Thus, contrary to the Examiner's assertion, Frutiger does not teach a plurality of input selectors along with the other selectors as claimed. In addition, Eckels has not been alleged to include the claimed input selectors, nor does it appear that Eckels discloses such input selectors.

Accordingly, neither Frutiger nor Eckels, either alone or in combination, disclose the plurality of input selectors as recited in claim 1. As a consequence, the combination of Frutiger and Eckels as proposed by the Examiner does not arrive at the invention of claim 1. For at least this reason, it is requested that the rejection of claim 1 be reversed.



*Discussion re: Patentability of Claims 3, 5-8 and 10*

Claims 3, 5-8 and 10 all depend from and incorporate all of the limitations of claim 1. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that claims 3, 5-8 and 10 are patentable over the prior art.

**Second Claim Grouping: Claims 11-15 and 27-30 Are Not Obvious Over Frutiger and Eckels**

*Discussion re: Patentability of Claim 11*

1. Claim 11 is Different than Claim 1

While claim 11 contains some limitations that are similar to those of claim 1, claim 11 does not include a limitation directed to a plurality of input selectors, among other things. Accordingly, not all of the arguments provided above in connection with claim 1 apply to claim 11.

Claim 11 includes the following limitations:

selecting a plurality of first output signals from a plurality of first input signals . . .  
selecting a second output signal from said plurality of first output signals . . . ; and  
selecting an operating mode . . . based on said second output signal.

Thus, claim 11 includes multiple selecting steps or operations, including selecting a plurality of first output signals from a plurality of first input signals, and selecting a second output signal from the plurality of first output signals.

2. The Claimed Combination of References Does Not Include the Multiple Selecting Steps as Claimed

The proposed combination of Frutiger and Eckels does not arrive at the claimed invention. In particular, neither Frutiger nor Eckels, either alone or in combination, teach, show or suggest selecting a plurality of first output signals and then selecting a second output signal from the plurality of first output signals, as called for in claim 11.

As with claim 1, the Examiner relies upon the device shown in Fig. 1 of Frutiger in the rejection of claim 11. (See Final Office Action at p.5). As discussed above, Fig. 1 of Frutiger appears to show only two levels of selectors, elements 1 and 2. Element 1 does not perform the claimed steps because it does not select a *plurality* of first output signals from a plurality of first input signals. (See Frutiger at Fig. 1). Instead, element 1 only selects a *single* output signal from a plurality of first input signals.

If, on the other hand, elements 1 and 2 are considered to cooperate together to select a plurality of first output signals (i.e. the outputs of element 2), then the apparatus of Fig. 1 of Frutiger fails to perform the step of selecting a second output signal from those first output signals. Thus, regardless of how Frutiger is applied to claim 11, it fails to disclose the claimed selecting steps.

In addition, Eckels has not been alleged to include the claimed selecting steps, nor does it appear that Eckels discloses such selecting steps. As a consequence, the combination of Frutiger and Eckels as proposed by the Examiner does not arrive at the invention of claim 11. For at least this reason, it is requested that the rejection of claim 11 be reversed.

*Discussion re: Patentability of Claims 12-15*

Claims 12-15 all depend from and incorporate all of the limitations of claim 11. Accordingly, for at least the same reasons as those set forth above in connection with claim 11, it is respectfully submitted that claims 12-15 are patentable over the prior art.

*Discussion re: Patentability of Claim 27*

Claim 27 is directed to a network device controller that includes among other things, “one or more selectors for selecting a plurality of first output signals from a plurality of first input signals”, and “one or more selectors for selecting at least one second output signal from said first output signals”. As discussed above in connection with claim 11, the prior art fails to disclose *any* structure that performs the above described selection operations. Thus, for at least the same reasons as those set forth above in connection with claim 11, it is respectfully submitted that the rejection of claim 27 is in error and should be reversed.

*Discussion re: Patentability of Claim 28-30*

Claims 28-30 all depend from and incorporate all of the limitations of claim 27. Accordingly, for at least the same reasons as those set forth above in connection with claim 27, it is respectfully submitted that claims 28-30 are patentable over the prior art.

**Third Claim Grouping:      Claim 4 is Not Obvious  
Over Frutiger and Eckels**

*Discussion re: Patentability of Claim 4*

1.      Claim 4 depends from Claim 1

As an initial matter, claim 4 depends from and incorporates all the limitations of

claim 1. Accordingly, claim 4 is patentable over the prior art for at least the same reasons as those set forth above in connection with claim 1.

2. Additional Limitations of Claim 4

Claim 4 also recites the following limitations:

wherein said output of said at least one intermediate selector is input to a switch and an output of said switch is connected to said output selector.

Thus, claim 4 includes a switch in addition to the three levels of selectors recited in claim 1.

In the rejection of claim 4, the Examiner alleged that Frutiger disclosed the claimed switch at col. 7, lines 40-58. (Final Office Action at p.4). It is submitted that the cited passages of Frutiger merely discuss the element 1 of Fig. 1, which is theoretically one of the input selectors according to the Examiner's rejection of claim 1. As a consequence, the cited passages of Frutiger do not disclose any additional switch, much less one coupled between the intermediate selector and the output selector.

More specifically, column 7, lines 40-58 discuss Fig. 5, which shows a decision table for a first decision table, which is embodied by element 1 of Fig. 1. Portions of the cited paragraph indicate that the output of element 1 may include both mode and reference information, but there is no discussion of any additional decision element or switching element.

Thus, the Examiner appears to allege that element 1 of Fig. 1 of Frutiger also constitutes the switch of claim 4, in addition to the input selector of claim 1. Element 1 cannot be both an input selector that provides a first output signal to an intermediate stage, *and* a switch that receives the *output* of the intermediate stage. Even if such an

arrangement were possible, Fig. 1 of Frutiger certainly does not disclose or suggest such multiple functions of element 1.

As a consequence, it is respectfully submitted that the Examiner has failed to make out a prima facie case of obviousness for reasons *independent* of those discussed above in connection with claim 1. Specifically, Frutiger does not show a switch disposed between the intermediate selector and the output selector, as claimed.

Accordingly, for reasons independent of those discussed above in connection with claim 1, it is respectfully submitted that the obviousness rejection of claim 4 should be reversed.

**Fourth Claim Grouping: Claim 9 is Not Obvious  
Over Atherton and Ouellette**

*Discussion re: Patentability of Claim 9*

1. Claim 9 depends from Claim 1

As an initial matter, claim 9 depends from and incorporates all the limitations of claim 1. Accordingly, claim 9 is patentable over the prior art for at least the same reasons as those set forth above in connection with claim 1.

2. Additional Limitations of Claims 9

Claim 9 also recites the following limitations:

said plurality of input selectors are connected to a first common input  
select signal for selecting said first output signals, . . .

Accordingly, claim 9 adds to claim 1 a limitation that recites that at least two selection devices having a common input select signal. By way of example, the inputs "C" of the

input selectors 46, 48 of the embodiment of the invention of Fig. 4 are commonly connected. (See Application at Fig. 4).

In the explanation of the rejection of claim 9, the Examiner cites column 4, line 22 to column 5, line 5 of Frutiger as purportedly teaching the common select signal element. However, applicant has carefully reviewed these passages and there does not appear to be any teaching that *any* two elements use a common select signal, much less two or more *input selector* elements.

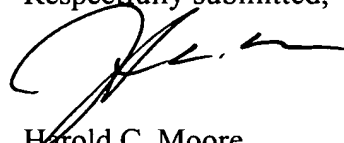
As a consequence, it is respectfully submitted that the Examiner has failed to make out a prima facie case of obviousness of claim 9 for reasons independent of those discussed above in connection with claim 1. Specifically, Frutiger does not show multiple input selectors connected to a common select signal as claimed.

Accordingly, for reasons independent of those discussed above in connection with claim 1, it is respectfully submitted that the obviousness rejection of claim 9 should be reversed.

**(9) CONCLUSION**

For all of the foregoing reasons, claims 1, 3-15 and 25-30 are not unpatentable under 35 U.S.C. § 103(a). As a consequence, the Board of Appeals is respectfully requested to reverse the rejection of these claims.

Respectfully submitted,



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## CLAIM APPENDIX

1. A network device controller comprising:
  - a device driver for selectively controlling an end device in a control network, wherein said driver comprises:
    - a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals;
    - at least one intermediate selector for selecting at least one second output signal from said first output signals; and
    - an output selector for selecting an operating mode of the end device from a plurality of predefined operating modes base on said second output signal.
3. The device driver as defined in claim 1 wherein said output of each of said input selectors are connected to said plurality of inputs of said at least one intermediate selector, and said output of said at least one intermediate selector is connected to said output selector for selecting said operating mode.
4. The device driver as defined in claim 3 wherein said output of said at least one intermediate selector is input to a switch and an output of said switch is connected to said output selector for selecting the operating mode, when there are more than one said at least one intermediate selector.



5. The device driver as defined in claim 1 wherein said plurality of predefined operating modes include a first operating mode in which the end device is operated at any point from a first mode to a second mode.

6. The device driver as defined in claim 5 wherein said plurality of predefined operating modes include a second operating mode in which the end device is operated at said first mode or said second mode.

7. The device driver as defined in claim 6 wherein said plurality of predefined operating modes include a third operating mode in which the end device is operated at said first mode.

8. The device driver as defined in claim 7 wherein said plurality of predefined operating modes include a third operating mode in which the end device is operated at said second mode.

9. The device driver as defined in claim 1 wherein said plurality of input selectors are connected to a first common input select signal for selecting said first output signals, and said at least one intermediate selector is connected to second a common input select signal for selecting said second output signal.

10. The device driver as defined in claim 1 wherein each of said plurality of first input signals corresponds to one of said predefined operating modes.

11. A method of selectively controlling a end device in a control network, said method comprising the steps of:

selecting a plurality of first output signals from a plurality of first input signals using a device driver provided in a controller;

selecting a second output signal from said plurality of first output signals using said device driver; and

selecting an operating mode of the end device from a plurality of predefined operating modes based on said second output signal using said device driver.

12. The method as defined in claim 11 wherein said plurality of predefined operating modes include a first operating mode in which the end device is operated at any point from a first mode to a second mode.

13. The method as defined in claim 12 wherein said plurality of predefined operating modes include a second operating mode in which the end device is operated at said first mode or said second mode.

14. The method as defined in claim 13 wherein said plurality of predefined operating modes include a third operating mode in which the end device is operated at said first mode.

15. The method as defined in claim 14 wherein said plurality of predefined operating modes include a third operating mode in which the end device is operated at said second mode.

25. The device driver as claimed in claim 1, wherein said device drive is comprised of separate software modules corresponding to different devices.

26. The device driver as claimed in claim 1, wherein said device driver is incorporated in a LON control network.

27. A network device controller for selectively controlling a plurality of devices in a control network, said controller comprising:

a plurality of device drivers for controlling a plurality of devices in said control network, wherein each said driver comprises:

one or more selectors for selecting a plurality of first output signals from a plurality of first input signals;

one or more selectors for selecting at least one second output signal from said first output signals; and

one or more selectors for selecting an operating mode of the end device from a plurality of predefined operating modes base on said second output signal.

28. A device driver as defined in claim 27 wherein said plurality of predefined operating modes include a first operating mode in which the end device is operated at any point from a first mode to a second mode.
29. A device driver as defined in claim 28 wherein said plurality of predefined operating modes include a second operating mode in which the end device is operated at said first mode or said second mode.
30. A device driver as defined in claim 29 wherein said plurality of predefined operating modes include a third operating mode in which the end device is operated at said first mode.